Hoechst Celanese

ORIGINAL

Department of
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Safety Affairs (DEHSA)

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Attn: TSCA Section 8(e) Coordinator
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Dear Sir or Madam:

In accordance with the reporting requirements of TSCA Section 8(e), Hoechst Celanese Corporation hereby submits the preliminary results of an acute oral toxicity study in rats of 4-hydroxyacetophenone, propoxylate (CAS no. unknown). The draft of the study report is attached.

In this study, central nervous system effects were observed at three dosage levels: 5000, 2000 and 750 mg/kg. At the 5000 mg dose, convulsions or tremors were observed in 7 of the 10 animals tested; of these 7 animals, 6 died on day-0, the 7th died on day-2. At the 2000 mg dose, convulsions or tremors were observed in 6 of the 10 animals on day-0; of these 6 animals, 2 died on day-0, 3 died on day-1 and 1 survived the study. At the 750 mg dose, tremors were observed in 2 of the 10 animals on day-0; of these 2 animals, 1 died on day-1, the other survived the study; 3 of the 10 animals showed abnormal respiration.

The use of the chemical is limited to R&D activities.

This submission contains no confidential business information.

If any further information is required, do not hesitate to contact Dr. Richard A. Jourdenais, Manager, Product Stewardship at 908-231-3746.

Sincerely,

Susan Engelman
Vice President, Environmental, Health & Safety Affairs

RAJ/mcs
Attachment

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Hoechst

C+

UBTL, INC.
520 WAKARA WAY
SALT LAKE CITY, UT 84108

DRAFT REPORT

ACUTE ORAL TOXICITY STUDY IN RATS ADMINISTERED TEST ARTICLE C-01951 4-HYDROXYACETOPHENONE PROPOXYLATE (PHAP)

UBTL STUDY 67099
PROTOCOL AOOECDL-010

PREPARED FOR

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UBTL, INC.
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SALT LAKE CITY, UT 84108

REPORT APPROVAL PAGE

J. Robert Mattinson, B.S.
Study Director

Date

R. Wayne Ball, Ph.D., D.A.B.T.
Associate Director of Toxicology

Date

UBTL, INC.
520 WAKARA WAY
SALT LAKE CITY, UT 84108

GOOD LABORATORY PRACTICE COMPLIANCE STATEMENT

The portions of this study conducted at UBTL were in accordance with the OECD regulations for Good Laboratory Practice with any exceptions as listed in the Data Integrity Statement found in Appendix C.

Evaluations related to the chemical composition, purity, strength and stability of the test article or the concentration, uniformity and stability of any mixtures used were the responsibility of the Sponsor. Therefore, these evaluations were not performed by the testing facility.

_____ _____

J. Robert Mattinson, B.S. Date
Study Director

ACUTE ORAL TOXICITY STUDY IN RATS ADMINISTERED TEST ARTICLE C-01951 4-HYDROXYACETOPHENONE PROPOXYLATE (PHAP)

ABSTRACT

Undiluted test article C-01951 was administered orally to five male and five female rats at 5000 mg/kg. As significant mortality was observed, additional dose levels (2000 mg/kg and 750 mg/kg) were initiated using five males and five females each in order to further clarify and define the mortality and significant clinical signs.

The oral toxicity test resulted in 100% mortality in the 5000 mg/kg dose group, 70% mortality in the 2000 mg/kg dose group and 10% mortality in the 750 mg/kg dose group. Those animals which died on test in all dose groups, were found dead on or before Study Day 3. Abnormal respiration (wheezing, gasping and/or labored breathing) was exhibited by four animals in the 5000 mg/kg dose group, seven animals in the 2000 mg/kg dose group and three animals in the 750 mg/kg dose group of which eleven animals died and three (two animals - 750 mg/kg dose group and one animal - 2000 mg/kg dose group) returned to normal by Study Day 1. Tremors were observed in two animals in the 750 mg/kg dose group; one died on test. Convulsions and/or tremors were observed in six animals in the 2000 mg/kg dose group; five died on test. Convulsions and/or tremors were observed in seven animals in the 5000 mg/kg dose group; all animals died on test. There were no target organs which were identified as being clearly related to test article administration. Based on the results of this assay, the acute oral LD50 for test article C-01951 is considered to be greater than 750 mg/kg and less than 2000 mg/kg.

5000 - 4T
2000 6 convuls Tremor 5 D. 1 2C
750 2 Tremor 1 D.

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OBJECTIVE

The objective of this study was to evaluate the acute oral toxicity of the test article when administered as a single dose by gavage to rats.

PROCEDURE

Protocol AOOECDL-010 (UBTL Study 67099) was followed. This study is consistent with the OECD guidelines for testing of chemicals and the EPA (TSCA) guidelines as published in the Code of Federal Regulations (40 CFR, Part 798.1175).

Five male and five female Sprague Dawley rats for each dose level (5000, 2000 and 750 mg/kg) were randomly selected by a computer randomization program. Animals were selected to test based on their prefasted body weights. The animals were fasted the night immediately prior to dosing.

Undiluted test article C-01951 was administered orally to five male and five female animals at a dose level of 5000 mg/kg. The mortality was 100%; therefore, two additional dose levels using five males and five females each were performed at dose levels of 2000 mg/kg and 750 mg/kg. Individual dosing volumes were adjusted based upon the density of the test article and the animal's fasted body weight.

Observations were made hourly for the first 4 hours immediately after dosing and twice daily (a.m. and p.m.) for the next 13 days - a total of 14 days of observation. Observations were made in accordance with UBTL SOP TOX-502.

Animal body weights were recorded at the following intervals:

-within 48 hours of receipt
-the day before dosing (prefasted)*
-the day of dosing (fasted)*
-week 1*
-termination/death*

*Data presented in Table 3

Animals dying on test or terminated at the end of the study underwent a postmortem examination. All tissues with identified lesions (from all dose groups) were collected and preserved in 10% neutral buffered formalin for possible histopathologic examination. However, the lesions were considered to be incidental and were discarded upon consultation with the sponsor.

The Test System Specifications, Test Article Description, Data Integrity Statement, Study Personnel and Quality Assurance Statement are found in Appendices A, B, C, D and E, respectively.

STUDY DATES

Study Start Date (Date protocol is signed by the Study Director):
02-Nov-94
Experimental Start Date (First day of dosing):
09-Nov-94
Experimental Completion Date: (last day data are collected from study):
21-Dec-94
Study Completion Date (Date final report is signed by the Study Director):
Refer to the signature page

TRANSFORMATIONS, CALCULATIONS OR OPERATIONS PERFORMED ON DATA

Mean and standard deviation values were calculated for the body weight data.

LOCATION OF ALL RAW DATA:

The original raw data, protocol and protocol amendment and final report for this study are maintained in the UBTL archives under Study No. 67099.

RESULTS:

Mortality:

The following mortality was observed in the dose groups:

DOSAGE	MALE	FEMALE
5000 mg/kg	100% (5/5)	100% (5/5)
2000 mg/kg	60% (3/5)	80% (4/5)
750 mg/kg	0% (0/5)	20% (1/5)

All animal deaths occurred within three days of test article administration.

The mortality data are summarized in Table 1.

In-Life Observations

Seven animals (3 males and 3 females from the 750 mg/kg dose group; and 1 male from the 2000 mg/kg dose group) appeared normal throughout the study period.

All other animals in all dose groups exhibited one or more of the following clinical observations during the study period: oral discharge, nasal discharge, ocular discharge, ocular opacity, stained coat, abnormal stools, abnormal respiration (wheezing, gasping and/or labored breathing), cold to touch, tremors, convulsions, lethargy and/or moribundity.

All animals which survived the 14-day study period, appeared normal by Study Day 2.

In-Life observations are summarized in Table 2.

Body Weights

All surviving test animals had gained weight by the end of their respective study periods.

Body weight data are summarized in Table 3.

Necropsy:

All animals that survived the study period were euthanized by CO_2. All animals at the conclusion of the study and those that died on study were subjected to a postmortem examination.

The twelve surviving animals (nine in the 750 mg/kg dose group and three in the 2000 mg/kg dose group) did not exhibit any visible lesions at necropsy.

The animals which died on test exhibited one or more of the following observations at necropsy: ocular, oral and/or nasal discharge, ocular opacity, gastrointestinal tract filled with gas and/or fluid, enlarged stomach, discolored and enlarged ovaries, dilation of the uterin horns, dilation of renal the pelvis, mottling of the lungs, discoloration along the intestinal tract, stained coat, and/or enlarged cervical lymph nodes.

Necropsy data are summarized in Table 4.

CONCLUSION:

The oral toxicity test resulted in 100% mortality in the 5000 mg/kg dose group, 70% mortality in the 2000 mg/kg dose group and 10% mortality in the 750 mg/kg dose group. Those animals which died on test in all dose groups, were found dead on or before Study Day 3. Abnormal respiration (wheezing, gasping and/or labored breathing) was exhibited by four animals in the 5000 mg/kg dose group, seven animals in the 2000 mg/kg dose group and three animals in the 750 mg/kg dose group of which eleven animals died and three (two animals - 750 mg/kg dose group and one animal - 2000 mg/kg dose group) returned to normal by Study Day 1. Tremors were observed in two animals in the 750 mg/kg dose group; one died on test. Convulsions and/or tremors were observed in six animals in the 2000 mg/kg dose group; five died on test. Convulsions and/or tremors were observed in seven animals in the 5000 mg/kg dose group; all animals died on test. There were no target organs which were identified as being clearly related to test article administration. Based on the results of this assay, the acute oral LD50 for test article C-01951 is considered to be greater than 750 mg/kg and less than 2000 mg/kg.

TABLE 1

MORTALITY DATA SUMMARY

5000 mg/kg Dose Group

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ANIMALS ALIVE	4	1	0	0	0	0	0	0	0	0	0	0	0	0
ANIMALS DEAD	6	9	10	10	10	10	10	10	10	10	10	10	10	10
PERCENTAGE DEAD	60	90	100	100	100	100	100	100	100	100	100	100	100	100
MALES ALIVE	3	0	0	0	0	0	0	0	0	0	0	0	0	0
MALES DEAD	2	5	5	5	5	5	5	5	5	5	5	5	5	5
PERCENTAGE DEAD	40	100	100	100	100	100	100	100	100	100	100	100	100	100
FEMALES ALIVE	1	1	0	0	0	0	0	0	0	0	0	0	0	0
FEMALES DEAD	4	4	5	5	5	5	5	5	5	5	5	5	5	5
PERCENTAGE DEAD	80	80	100	100	100	100	100	100	100	100	100	100	100	100

TABLE 1

MORTALITY DATA SUMMARY

2000 mg/kg Dose Group

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ANIMALS ALIVE	8	4	4	3	3	3	3	3	3	3	3	3	3	3
ANIMALS DEAD	2	6	6	7	7	7	7	7	7	7	7	7	7	7
PERCENTAGE DEAD	20	60	60	70	70	70	70	70	70	70	70	70	70	70
MALES ALIVE	4	2	2	2	2	2	2	2	2	2	2	2	2	2
MALES DEAD	1	3	3	3	3	3	3	3	3	3	3	3	3	3
PERCENTAGE DEAD	20	60	60	60	60	60	60	60	60	60	60	60	60	60
FEMALES ALIVE	4	2	2	1	1	1	1	1	1	1	1	1	1	1
FEMALES DEAD	1	3	3	4	4	4	4	4	4	4	4	4	4	4
PERCENTAGE DEAD	20	60	60	80	80	80	80	80	80	80	80	80	80	80

TABLE 1

MORTALITY DATA SUMMARY

750 mg/kg Dose Group

DAY	0	1	2	3	4	5	6	7	8	9	10	11	12	13
ANIMALS ALIVE	10	9	9	9	9	9	9	9	9	9	9	9	9	9
ANIMALS DEAD	0	1	1	1	1	1	1	1	1	1	1	1	1	1
PERCENTAGE DEAD	0	10	10	10	10	10	10	10	10	10	10	10	10	10
MALES ALIVE	5	5	5	5	5	5	5	5	5	5	5	5	5	5
MALES DEAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERCENTAGE DEAD	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FEMALES ALIVE	5	4	4	4	4	4	4	4	4	4	4	4	4	4
FEMALES DEAD	0	1	1	1	1	1	1	1	1	1	1	1	1	1
PERCENTAGE DEAD	0	20	20	20	20	20	20	20	20	20	20	20	20	20

TABLE 2

IN-LIFE OBSERVATIONS SUMMARY
(days following treatment)

5000 mg/kg Dose Group

OBSERVATION	1hr*	2hr*	3hr*	4hr*	1	2	3	4	5
NORMAL	3/10**	0/10	0/8	0[1]/4	0/1	0/0	0/0	0/0	0/0
ORAL DISCHARGE	5/10	6/10	7/8	5/4	1/1	0/0	0/0	0/0	0/0
NASAL DISCHARGE	3/10	4/10	4/8	4/4	0/1	0/0	0/0	0/0	0/0
OCULAR DISCHARGE	0/10	0/10	0/8	0/4	1/1	0/0	0/0	0/0	0/0
ABNORMAL RESPIRATION[2]	1/10	1/10	4/8	3/4	0/1	0/0	0/0	0/0	0/0
TREMORS	0/10	1/10	0/8	0/4	1/1	0/0	0/0	0/0	0/0
LETHARGIC	1/10	2/10	0/8	0/4	0/1	0/0	0/0	0/0	0/0
MORIBUND	0/10	0/10	1/8	0/4	0/1	0/0	0/0	0/0	0/0
STAINED COAT	0/10	0/10	0/8	0/4	1/1	0/0	0/0	0/0	0/0
COLD TO TOUCH	1/10	3/10	2/8	2/4	0/1	0/0	0/0	0/0	0/0
CONVULSIONS	1/10	4/10	2/8	2/4	0/1	0/0	0/0	0/0	0/0
OCULAR OPACITY	0/10	1/10	0/8	0/4	0/1	0/0	0/0	0/0	0/0

* Day of dosing, values given in hours
** Number of animals with a given observation (A.M. and/or P.M.)/number of animals alive after the last observation of the hour or day
[1] Two animals were found dead following 4 hour observation but prior to the end of the day
[2] Respiration observations include wheezing and/or labored breathing

TABLE 2

IN-LIFE OBSERVATIONS SUMMARY
(days following treatment)

5000 mg/kg Dose Group (Continued)

OBSERVATION	6	7	8	9	10	11	12	13
NORMAL	0/0*	0/0	0/0	0/0	0/0	0/0	0/0	0/0
ORAL DISCHARGE	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
NASAL DISCHARGE	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
OCULAR DISCHARGE	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
ABNORMAL RESPIRATION[1]	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
TREMORS	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
LETHARGIC	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
MORIBUND	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
STAINED COAT	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
COLD TO TOUCH	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
CONVULSIONS	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
OCULAR OPACITY	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0

* Number of animals with a given observation (A.M. and/or P.M.)/number of animals alive after the last observation of the hour or day

[1] Respiration observations include wheezing and/or labored breathing

TABLE 2

IN-LIFE OBSERVATIONS SUMMARY
(days following treatment)

2000 mg/kg Dose Group

OBSERVATION	1hr*	2hr*	3hr*	4hr*	1	2	3	4	5
NORMAL	2/10**	2/9	2/8	2/8	1/4	3/4	3/3	3/3	3/3
ORAL DISCHARGE	4/10	3/9	5/8	5/8	2/4	0/4	0/3	0/3	0/3
NASAL DISCHARGE	2/10	0/9	2/8	3/8	0/4	0/4	0/3	0/3	0/3
OCULAR DISCHARGE	0/10	0/9	0/8	0/8	1/4	1/4	0/3	0/3	0/3
ABNORMAL RESPIRATION[1]	3/10	2/9	3/8	4/8	0/4	1/4	0/3	0/3	0/3
TREMORS	2/10	2/9	2/8	4/8	0/4	0/4	0/3	0/3	0/3
ABNORMAL STOOLS	0/10	0/9	0/8	0/8	1/4	0/4	0/3	0/3	0/3
LETHARGY	5/10	3/9	5/8	5/8	2/4	1/4	0/3	0/3	0/3
MORIBUND	0/10	2/9	1/8	1/8	0/4	0/4	0/3	0/3	0/3
STAINED COAT	1/10	1/9	1/8	1/8	1/4	1/4	0/3	0/3	0/3
COLD TO TOUCH	0/10	1/9	1/8	2/8	1/4	1/4	0/3	0/3	0/3
CONVULSIONS	2/10	0/9	1/8	1/8	0/4	0/4	0/3	0/3	0/3

* Day of dosing, values given in hours
** Number of animals with a given observation (A.M. and/or P.M.)/number of animals alive after the last observation of the hour or day
[1] Respiration observations include gasping and/or labored breathing

TABLE 2

IN-LIFE OBSERVATIONS SUMMARY
(days following treatment)

2000 mg/kg Dose Group (Continued)

OBSERVATION	6	7	8	9	10	11	12	13
NORMAL	3/3*	3/3	3/3	3/3	3/3	3/3	3/3	3/3
ORAL DISCHARGE	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
NASAL DISCHARGE	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
OCULAR DISCHARGE	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
ABNORMAL RESPIRATION[1]	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
TREMORS	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
ABNORMAL STOOLS	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
LETHARGY	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
MORIBUND	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
STAINED COAT	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
COLD TO TOUCH	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3
CONVULSIONS	0/3	0/3	0/3	0/3	0/3	0/3	0/3	0/3

* Number of animals with a given observation (A.M. and/or P.M.)/number of animals alive after the last observation of the hour or day

[1] Respiration observations include gasping and/or labored breathing

TABLE 2

IN-LIFE OBSERVATIONS SUMMARY
(days following treatment)

750 mg/kg Dose Group

OBSERVATION	1hr*	2hr*	3hr*	4hr*	1	2	3	4	5
NORMAL	7/10**	7/10	6/10	7/10	9/9	9/9	9/9	9/9	9/9
ORAL DISCHARGE	1/10	1/10	2/10	1/10	0/9	0/9	0/9	0/9	0/9
NASAL DISCHARGE	1/10	0/10	0/10	1/10	0/9	0/9	0/9	0/9	0/9
ABNORMAL RESPIRATION[1]	3/10	3/10	3/10	3/10	0/9	0/9	0/9	0/9	0/9
TREMORS	1/10	2/10	2/10	1/10	0/9	0/9	0/9	0/9	0/9
LETHARGIC	3/10	3/10	3/10	3/10	0/9	0/9	0/9	0/9	0/9
COLD TO TOUCH	0/10	1/10	2/10	1/10	0/9	0/9	0/9	0/9	0/9

OBSERVATION	6	7	8	9	10	11	12	13
NORMAL	9/9	9/9	9/9	9/9	9/9	9/9	9/9	9/9
ORAL DISCHARGE	0/9	0/9	0/9	0/9	0/9	0/9	0/9	0/9
NASAL DISCHARGE	0/9	0/9	0/9	0/9	0/9	0/9	0/9	0/9
ABNORMAL RESPIRATION[1]	0/9	0/9	0/9	0/9	0/9	0/9	0/9	0/9
TREMORS LETHARGIC	0/9	0/9	0/9	0/9	0/9	0/9	0/9	0/9
COLD TO TOUCH	0/9	0/9	0/9	0/9	0/9	0/9	0/9	0/9

* Day of dosing, values given in hours
** Number of animals with a given observation (A.M. and/or P.M.)/number of animals alive after the last observation of the hour or day
1 Labored breathing

TABLE 3

BODY WEIGHT DATA SUMMARY
(weight in grams)

5000 mg/kg Dose Group

Animal Number	Sex	Pre-Fasted Weight	Fasted Weight	Week 1 Weight	Terminal/ Dead Weight	Weight Change
235702	M	277	245	**(0)	**	**
235707	M	282	255	**(1)	**	**
235722	M	286	258	**(1)	**	**
235726	M	275	248	**(1)	**	**
235730	M	269	244	**(0)	**	**
235731	F	224	207	**(0)	**	**
235740	F	229	209	**(2)	**	**
235741	F	232	213	**(0)	**	**
235745	F	231	214	**(0)	**	**
235760	F	221	203	**(0)	**	**
Male Mean±SD		278 ± 7	250 ± 6	**	**	**
Female Mean±SD		227 ± 5	209 ± 4	**	**	**

Study Weight Change = (Terminal/Death Weight) - (Pre-fasted Weight)

( ) Study day of death - Indicated only when animal dies on study

** Data does not apply due to animal death

TABLE 3

BODY WEIGHT DATA SUMMARY
(weight in grams)

2000 mg/kg Dose Group

Animal Number	Sex	Pre-Fasted Weight	Fasted Weight	Week 1 Weight	Terminal/ Dead Weight	Weight Change
236001	M	253	235	**(0)	**	**
236015	M	265	241	**(1)	**	**
236019	M	260	232	328	400	140
236027	M	246	222	286	325	79
236034	M	257	229	**(1)	**	**
236040	F	230	204	243	272	42
236042	F	233	213	**(1)	**	**
236044	F	219	199	**(1)	**	**
236045	F	226	207	**(0)	**	**
236046	F	216	196	**(3)	**	**
Male Mean±SD		256 ± 7	232 ± 7	307 ± 30*	363 ± 53*	110 ± 43*
Female Mean±SD		225 ± 7	204 ± 7	243 †	272 †	42 †

Study Weight Change = (Terminal/Death Weight) - (Pre-fasted Weight)

( ) Study day of death - Indicated only when animal dies on study

* Mean and Standard Deviation values do not reflect animals that died before the scheduled weighing points.

** Data does not apply due to animal death

† Value is an actual value for a single animal rather than a mean for a group of animals

TABLE 3

BODY WEIGHT DATA SUMMARY
(weight in grams)

750 mg/kg Dose Group

Animal Number	Sex	Pre-Fasted Weight	Fasted Weight	Week 1 Weight	Terminal/ Dead Weight	Weight Change
236002	M	264	240	317	359	95
236003	M	253	229	305	350	97
236012	M	256	235	328	386	130
236028	M	265	239	335	387	122
236035	M	247	224	318	374	127
236038	F	228	212	236	267	39
236041	F	223	201	240	259	36
236049	F	233	210	256	272	39
236065	F	216	198	234	255	39
236066	F	217	195	** (1)	**	**
Male Mean±SD		257 ± 8	233 ± 7	321 ± 11	371 ± 16	114 ± 17
Female Mean±SD		223 ± 7	203 ± 7	242 ± 10*	263 ± 8*	38 ± 2*

Study Weight Change = (Terminal/Death Weight) - (Pre-fasted Weight)

* Mean and Standard Deviation values do not reflect animals that died before the scheduled weighing points.

** Data does not apply due to animal death

TABLE 4

GROSS NECROPSY SUMMARY

5000 mg/kg Dose Group

Animal Number	Study Day Of Death	Sex	Gross Necropsy Observations
235702	0	M	External Examination: Wet orange material around nose and mouth, yellow stained coat perineal region Lungs: Dark red mottling all lobes Stomach: Gas and fluid filled
235707	1	M	External Examination: Red oral discharge Stomach: Fluid filled Small Intestines: Fluid filled
235722	1	M	External Examination: Clear oral discharge Stomach: Fluid filled
235726	1	M	External Examination: Clear oral discharge Stomach: Fluid filled
235730	0	M	Eyes: Ocular opacity Cervical Lymph Nodes: Enlarged two times normal Stomach: Yellow fluid filled
235731	0	F	External Examination: Yellow oral discharge Cervical Lymph Nodes: Enlarged two times normal Ovaries: Dark red and slightly enlarged Uterine Horns: Dilated Ileum: Dark red Stomach: Fluid filled Kidneys: Dilated renal pelvis
235740	2	F	External Examination: Yellow stained coat perineal region, clear oral discharge Organs: All organs dark in color appear to be autolyzed Stomach: Gas and fluid (bright yellow) filled
235741	0	F	External Examination: Clear dry material around the nose and mouth Stomach: Fluid filled Duodenum: Fluid filled Jejunum: Fluid filled Ovaries: Dark red

TABLE 4

GROSS NECROPSY SUMMARY

5000 mg/kg Dose Group (Continued)

Animal Number	Study Day Of Death	Sex	Gross Necropsy Observations
237745	0	F	External Examination: Clear nasal discharge Right Eye: Ocular opacity Ovaries: Dark red Gastrointestinal tract: Fluid filled Stomach: Fluid filled
235760	0	F	External Examination: Clear dry material around mouth, ocular opacity on right eye Cervical Lymph Nodes: Enlarged three times normal Uterine: Both horns dilated, right bigger than left Ovaries: Dark red Rectum: Dark red portion at the lower rectum Stomach: Yellow fluid filled

TABLE 4

GROSS NECROPSY SUMMARY
(TS = Terminal Sacrifice)

2000 mg/kg Dose Group

Animal Number	Study Day Of Death	Sex	Gross Necropsy Observations
236001	0	M	External Examination: Clear oral and nasal discharge Stomach: Clear fluid filled
236015	1	M	External Examination: Clear oral discharge Stomach: Gas and fluid filled Organs: Appeared to be autolyzed
236019	TS	M	No Visible Lesions
236027	TS	M	No Visible Lesions
236034	1	M	External Examination: Clear red oral and nasal discharge Stomach: Gas and fluid filled Organs: Appeared to be autolyzed
236040	TS	F	No Visible Lesions
236042	1	F	External Examination: Clear oral and nasal discharge Stomach: Gas and fluid filled
236044	1	F	External Examination: Clear oral and nasal discharge, yellow stained coat perineal region Stomach: Gas and fluid filled Organs: Appeared to be autolyzed
236045	0	F	No Visible Lesions
236046	3	F	External Examination: Stained coat perineal region, brown oral discharge, red ocular discharge Stomach: Fluid filled Jejunum: Fluid filled Ileum: Fluid filled

TABLE 4

GROSS NECROPSY SUMMARY
(TS = Terminal Sacrifice)

750 mg/kg Dose Group

Animal Number	Study Day Of Death	Sex	Gross Necropsy Observations
236002	TS	M	No Visible Lesions
236003	TS	M	No Visible Lesions
236012	TS	M	No Visible Lesions
236028	TS	M	No Visible Lesions
236035	TS	M	No Visible Lesions
236038	TS	F	No Visible Lesions
236041	TS	F	No Visible Lesions
236049	TS	F	No Visible Lesions
236065	TS	F	No Visible Lesions
236066	1	F	External Examination: Clear oral and nasal discharge Stomach: Gas and fluid filled Organs: Appeared to be autolyzed

APPENDIX A
TEST SYSTEM SPECIFICATIONS

ANIMAL DESCRIPTION (Study Specific)

Species:	Rat
Strain:	Sprague Dawley
Number/Sex:	5000 mg/kg: 5 males and 5 females 2000 mg/kg: 5 males and 5 females 750 mg/kg: 5 males and 5 females
Source:	Healthy animals were obtained from Charles River, Portage, MI.
Age:	Young Adults
Body Weight Range:	5000 mg/kg: 221-286 grams at pre-fast 2000 mg/kg: 216-265 grams at pre-fast 750 mg/kg: 216-265 grams at pre-fast Animal weights fell within 20% of the group mean.
Acclimation Period:	7 days
Animal Identification:	Each animal was assigned a unique number. This number was permanently indicated on each animal with an ear tag.
Method of Euthanasia:	Euthanasia was accomplished using carbon dioxide

HUSBANDRY DESCRIPTION (Protocol Specific)

Room:	Animals were housed separately from any other species.
Caging:	Individually housed in stainless steel, wire mesh bottom cages.
Climate:	Animal room air was 100% fresh with not less than 10 air changes per hour.
Temperature:	64°F - 79°F
Humidity:	30% - 70% relative humidity (per OECD)
Light:	12/12 hour, light/dark cycle

APPENDIX A
TEST SYSTEM SPECIFICATIONS
(Continued)

Monitoring:	Animal room temperature and humidity were monitored daily with a minimum/maximum thermometer. Humidity was recorded daily.
Maintenance:	Animal rooms were cleaned at least three times per week.
Feed:	Fresh certified Agway rodent feed was provided ad libitum, except feed was withheld the night prior to dosing.
Water:	Fresh potable water was provided ad libitum.

APPENDIX B

TEST ARTICLE DESCRIPTION
(as provided by Sponsor)

Test Article Code Number:	C-01951
Chemical Name:	4-Hydroxyacetophenone Propoxylate (PHAP)
SN Number:	SN-11356
Physical Description:	Amber, slightly viscous liquid
Density[1]:	1.0770 g/ml
pH[2]:	7
Stability:	Stable
Solubility:	Not soluble in water
Expiration Date:	08-17-96
Storage conditions:	Keep away from heat, sparks and flames. Protect from light and moisture.
Handling Precautions:	Avoid contact with skin and eyes. Wear NIOSH-approved respirator.
Characteristics:	Characterization of each lot or batch before its use in the study, documentation of synthesis, determination of solubility (when relevant) and stability both before the experimental starting date or concurrently were the responsibility of the sponsor.
Reserve Sample:	A reserve sample of each batch and/or lot of test article was collected prior to use. The reserve sample shall be maintained in archives.

1 As determined by UBTL according to SOP TA-040
2 As determined by UBTL using pHydrion paper (0-13)

APPENDIX C

DATA INTEGRITY STATEMENT

Deviations

Post mortum weights on three animals in the 5000 mg/kg dose group which were found dead on Study Day 1 were not collected.

Integrity Conclusion

The Study Director does not believe that the deviation listed above has adversely affected the quality or integrity of the data in this study.

APPENDIX D

STUDY PERSONNEL

Study Director:	1.	J. Robert Mattinson, B.A.
Other Scientists, Professionals or Supervisors:	2.	R. Wayne Ball, Ph.D., D.A.B.T., Associate Director of Toxicology
	3.	Sheryl M. Dutson, M.S., Manager of Toxicology
	4.	Amanda M. Sarwacinski, B.A., Technician
	5.	Athena C. D. Webster, B.S., Technician
	6.	Ada M. Alvarado, Assistant Technician

APPENDIX E

UBTL, INC
520 WAKARA WAY
SALT LAKE CITY, UT 84108

QUALITY ASSURANCE STATEMENT

Study: 67099
Protocol: AOOECDL-010

Study Title: Acute Oral Toxicity Study in Rats Administered Test Article C-01951, 4-Hydroxyacetophenone Propoxylate (PHAP)

This study was inspected by the Quality Assurance Unit and the findings of the inspections were reported to the management and to the Study Director on the dates given below.

Phase Inspected	Date Inspected	Date Reported
Protocol	02 Nov 94	02 Nov 94
Dosing	09 Nov 94	09 Nov 94
Observations	09 Nov 94	09 Nov 94
Necropsy	21 Dec 94	21 Dec 94
Dosing	07 Dec 94	07 Dec 94
Body Weights	14 Dec 94	14 Dec 94
Protocol Amendment	27 Dec 94	27 Dec 94
Data/Draft Report	19 Jan 95	19 Jan 95

Lynn M. Kolhepp, B.S.
Quality Assurance

Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Susan P. Engelman
Vice President
Environmental Health & Safety Affairs
Hoechst Celanese Corporation
Route 202-206
P.O. Box 2500
Somerville, New Jersey 08876-1258

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

APR 2 4 1995

EPA acknowledges the receipt of information submitted by your organization under Section 8(e) of the Toxic Substances Control Act (TSCA). For your reference, copies of the first page(s) of your submission(s) are enclosed and display the TSCA §8(e) Document Control Number (e.g., 8EHQ-00-0000) assigned by EPA to your submission(s). Please cite the assigned 8(e) number when submitting follow-up or supplemental information and refer to the reverse side of this page for "EPA Information Requests".

All TSCA 8(e) submissions are placed in the public files unless confidentiality is claimed according to the procedures outlined in Part X of EPA's TSCA §8(e) policy statement (43 FR 11110, March 16, 1978). Confidential submissions received pursuant to the TSCA §8(e) Compliance Audit Program (CAP) should already contain information supporting confidentiality claims. This information is required and should be submitted if not done so previously. To substantiate claims, submit responses to the questions in the enclosure "Support Information for Confidentiality Claims". This same enclosure is used to support confidentiality claims for non-CAP submissions.

Please address any further correspondence with the Agency related to this TSCA 8(e) submission to:

Document Processing Center (7407)
Attn: TSCA Section 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Washington, D.C. 20460-0001

EPA looks forward to continued cooperation with your organization in its ongoing efforts to evaluate and manage potential risks posed by chemicals to health and the environment.

Sincerely,

Terry R. O'Bryan

Terry R. O'Bryan
Risk Analysis Branch

Enclosure 13337A

Triage of 8(e) Submissions

Date sent to triage: 12/14/95

NON-CAP CAP

Submission number: 13337 A

TSCA Inventory: Y N (D)

Study type (circle appropriate):

Group 1 - Dick Clements (1 copy total)

ECO AQUATO

Group 2 - Ernie Falke (1 copy total)

(ATOX) SBTOX SEN (w/NEUR)

Group 3 - Elizabeth Margosches (1 copy each)

STOX CTOX EPI RTOX GTOX

STOX/ONCO CTOX/ONCO IMMUNO CYTO NEUR

Other (FATE, EXPO, MET, etc.): _____

Notes:

THIS IS THE ORIGINAL 8(e) SUBMISSION; PLEASE REFILE AFTER TRIAGE DATABASE ENTRY

For Contractor Use Only

entire document: (0) 1 2 **pages** 5 Red Dot **pages** 1, tabs

Notes:

Contractor reviewer : LPS **Date:** 4/14/95

CECATS\TRIAGE TRACKING DBASE ENTRY FORM

CECATS DATA:
Submission # 8EHQ- 0295-13337 SEQ. A

TYPE: (INT.) SUPP FLWP

SUBMITTER NAME: Hoechst Celanese Corporation

INFORMATION REQUESTED: FLWP DATE:
0501 NO INFO REQUESTED
0502 INFO REQUESTED (TECH)
0503 INFO REQUESTED (VOL ACTIONS)
0504 INFO REQUESTED (REPORTING RATIONALE)

DISPOSITION:
(0639) REFER TO CHEMICAL SCREENING
0678 CAP NOTICE

VOLUNTARY ACTIONS:
(0401) NO ACTION REPORTED
0402 STUDIES PLANNED/UNDERWAY
0403 NOTIFICATION OF WORKERS/OTHERS
0404 LABEL/MSDS CHANGES
0405 PROCESS/HANDLING CHANGES
0406 APPAU DISCONTINUED
0407 PRODUCTION DISCONTINUED
0408 CONFIDENTIAL

SUB. DATE: 02/13/95 OTS DATE: 02/22/95 CSRAD DATE: 03/15/95

CHEMICAL NAME: Acetophenone, 4-hydroxy-, propoxylate
C-01951

CAS#: Unknown
11

INFORMATION TYPE:		P F C
0201	ONCO (HUMAN)	01 02 04
0202	ONCO (ANIMAL)	01 02 04
0203	CELL TRANS (IN VITRO)	01 02 04
0204	MUTA (IN VITRO)	01 02 04
0205	MUTA (IN VIVO)	01 02 04
0206	REPRO/TERATO (HUMAN)	01 02 04
0207	REPRO/TERATO (ANIMAL)	01 02 04
0208	NEURO (HUMAN)	01 02 04
(0209)	NEURO (ANIMAL)	01 02 04
0210	ACUTE TOX. (HUMAN)	01 02 04
0211	CHR. TOX. (HUMAN)	01 02 04
(0212)	ACUTE TOX. (ANIMAL)	01 02 04
0213	SUB ACUTE TOX (ANIMAL)	01 02 04
0214	SUB CHRONIC TOX (ANIMAL)	01 02 04
0215	CHRONIC TOX (ANIMAL)	01 02 04
0216	EPI/CLIN	01 02 04
0217	HUMAN EXPOS (PROD CONTAM)	01 02 04
0218	HUMAN EXPOS (ACCIDENTAL)	01 02 04
0219	HUMAN EXPOS (MONITORING)	01 02 04
0220	ECO/AQUA TOX	01 02 04
0221	ENV. OCCC/REL/FATE	01 02 04
0222	EMER INCI OF ENV CONTAM	01 02 04
0223	RESPONSE REQEST DELAY	01 02 04
0224	PROD/COMP/CHEM ID	01 02 04
0225	REPORTING RATIONALE	01 02 04
0226	CONFIDENTIAL	01 02 04
0227	ALLERG (HUMAN)	01 02 04
0228	ALLERG (ANIMAL)	01 02 04
0239	METAB/PHARMACO (ANIMAL)	01 02 04
0240	METAB/PHARMACO (HUMAN)	01 02 04
0241	IMMUNO (ANIMAL)	01 02 04
0242	IMMUNO (HUMAN)	01 02 04
0243	CHEM/PHYS PROP	01 02 04
0244	CLASTO (IN VITRO)	01 02 04
0245	CLASTO (ANIMAL)	01 02 04
0246	CLASTO (HUMAN)	01 02 04
0247	DNA DAM/REPAIR	01 02 04
(0248)	PROD/USE/PROC	01 02 04
0251	MSDS	01 02 04
0299	OTHER	01 02 04

TRIAGE DATA:

NON-CBI INVENTORY: YES / NO / (IN TERMINI)

ONGOING REVIEW: YES (DROP/REFER) / NO (CONTINUE) / REFER

SPECIES: RAT

TOXICOLOGICAL CONCERN: (LOW) / MED / HIGH

USE: R&D

PRODUCTION:

CAS SR

COMMENTS: Non-CAP

13337A

L

Acute oral toxicity in rats is of low concern. Single oral doses to Sprague-Dawley rats (5/sex/dose) at levels of 750, 2000, and 5000 mg/kg were lethal (1/10, 7/10, and 10/10, respectively). Clinical signs of toxicity included abnormal respiration (wheezing, gasping, and/or labored breathing), cold to touch, tremors, convulsions, and lethargy. Necropsy revealed discolored/enlarged ovaries, dilation of the uterine horns, and enlarged cervical lymph nodes in high-dose animals.